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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/629,892	07/31/2000	Louis Luneau	14792-1US-JA/AA/mb	5090
20988	7590	09/20/2004	EXAMINER	
OGILVY RENAULT 1981 MCGILL COLLEGE AVENUE SUITE 1600 MONTREAL, QC H3A2Y3 CANADA			AHN, SAM K	
			ART UNIT	PAPER NUMBER
			2637	

DATE MAILED: 09/20/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

## Office Action Summary

Application No.

09/629,892

Applicant(s)

LUNEAU, LOUIS

Examiner

Sam K. Ahn

Art Unit

2637

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

### Status

- 1) ☒ Responsive to communication(s) filed on amendment, received on 6/23/04.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

### Disposition of Claims

- 4) ☒ Claim(s) 1-17 and 19 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-17 and 19 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

### Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
  - ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

### Attachment(s)

- ☐ Notice of References Cited (PTO-892)
- ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)  
Paper No(s)/Mail Date \_\_\_\_\_
- ☐ Interview Summary (PTO-413)  
Paper No(s)/Mail Date. \_\_\_\_\_
- ☐ Notice of Informal Patent Application (PTO-152)
- ☐ Other: \_\_\_\_\_

## DETAILED ACTION

### *Response to Arguments*

1. Applicant's arguments filed on 6/23/04 have been fully considered but they are not persuasive. Applicants argue that Bexten in view of Phillips do not teach the limitation of "interpreting said received at least one selected channel input signal to provide parameters for said at least one tunable down converter unit, for said at least one tunable filter unit and for said switch". Applicants further argue that Bexten in view of Phillips do not teach the limitation of "switching said switch in order to connect one of said RF receiver units to one of said tunable down converter unit using said parameters". The examiner respectfully disagrees. As explained in the previous office action, Bexten discloses a method for receiving a wireless communication with a device (see Fig.5) which comprises a plurality of RF receiver units (see Fig.5), at least one tunable down converter unit (520), at least one tunable filter (630 in Fig.6, and note col.7, lines 3-20), a switch (515) comprising the steps of receiving a wireless signal from an antenna (205) and outputting an IF broadband signal from the output of (505). Further, switching in order to connect one of said RF receiver units to one of said tunable down converter units (520), downconverting the IF broadband signal to provide a raw I and Q signals (see Fig.6) and filtering (in 630 in Fig.6) the raw I and Q signal to provide I and Q signals. However, Bexten does not teach receiving at least one selected channel input signal, and interpreting the signal to provide parameters for the tunable down converter unit, filter unit and the switch. Phillips teaches a programmable receiver comprising downconverting, filtering

and switching (106 in Fig.3, also see 106 in Fig.4A), which are programmable. The at least one tunable down converter unit, at least one tunable filter unit and said switch may further be reprogrammed by external source by receiving the at least one selected channel input signal, (see 118 in Fig.1, and note col.44, line 56 – col.45, line 5) which requires downloading programs, thus interpreting the downloaded data for execution of the program and provide the parameters. Therefore, it would have been obvious to one skilled in the art at the time of the invention that the resource manager of Bexten controlling the switch may be combined with Phillips' controller (114), thus receiving the parameters from an external source (118) and controlling said at least one tunable down converter unit, for said at least one tunable filter unit and for said switch for the purpose of increasing flexibility of the system, which would be capable of dynamically controlling the receiver by externally providing the parameters as required.

Regarding the limitation of "switching said switch in order to connect one of said RF receiver units to one of said tunable down converter unit using said parameters", as previously explained, Bexten teaches this limitation. (520) However, does not teach that the switching is performed using said parameters. As explained earlier, Phillips already teaches the limitation of providing the parameters for said at least one tunable down converter unit, for said at least one tunable filter unit and for said switch. Therefore, it would have been obvious to one skilled in the art at the time of the invention that the resource manager of Bexten controlling the switch may be combined with Phillips' controller (114) for receiving the parameters and controlling

said at least one tunable down converter unit, for said at least one tunable filter unit and for said switch for the purpose of increasing flexibility of the system, which would allow the receiver to be capable of receiving plurality types of incoming signals. Therefore, Bexten in view of Phillips teach all subject matter claimed.

### ***Claim Objections***

2. Claims 1-17 and 19 are objected to because of the following informalities:

In claim 1, line 7, delete "said tunable down converter units" and insert "and said plurality of tunable down converter units".

In claim 1, line 13, delete "units;" and insert "units; and".

In claims 2-13, line 1, respectively, delete "The receiver" and insert "The multi-protocol receiver".

In claim 2, line 2, delete "said RF" and insert "said plurality of RF".

In claim 2, line 3, delete "said ADC" and insert "said plurality of ADC".

In claim 2, line 4, delete "said tunable" and insert "said plurality of tunable".

In claims 3-7, 10-13, 15-17 and 19, line 1, respectively, delete "wherein" and insert ", wherein".

In claim 14, line 11, delete "said RF" and inset "said plurality of RF".

In claim 14, line 13, delete "a raw" and insert "raw".

In claim 14, line 15, delete "provide I and Q" and insert "provide filtered I and Q".

Appropriate correction is required.

***Claim Rejections - 35 USC § 112***

The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

3. Claims 1-17 and 19 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

In claims 1 and 14, lines 11-14 and 11-12, respectively, recite a switch connecting the outputs of plurality of RF receiver units (11) to one of plurality of tunable down converter units (23). However, according to the specification and the drawing (Fig.2), the plurality of ADCs are connected to the switch rather than the plurality of RF receiver units. Therefore, the claim does not distinctly recite the subject matter which applicant regards as the invention.

Claims 2-13,15-17 and 19 directly or indirectly depend on claim 1 or 14.

***Claim Rejections - 35 USC § 103***

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

4. Claims 14-17 are rejected under 35 U.S.C. 103(a) as being unpatentable over Bexten (cited previously) in view of Phillips et al. (Phillips) .

Regarding claim 14, Bexten discloses a method for receiving a wireless communication with a device (see Fig.5) which comprises a plurality of RF receiver units (see Fig.5), at least one tunable down converter unit (520), at least one tunable filter (630 in Fig.6, and note col.7, lines 3-20), a switch (515) comprising the steps of receiving a wireless signal from an antenna (205) and outputting an IF broadband signal from the output of (505). Further, switching in order to connect one of said RF receiver units to one of said tunable down converter units (520), downconverting the IF broadband signal to provide a raw I and Q signals (see Fig.6) and filtering (in 630 in Fig.6) the raw I and Q signal to provide I and Q signals. However, Bexten does not teach receiving at least one selected channel input signal, and interpreting the signal to provide parameters for the tunable down converter unit, filter unit and the switch.

Phillips teaches a programmable receiver comprising downconverting, filtering and switching (106 in Fig.3, also see 106 in Fig.4A), which are programmable.

Phillips teaches a programmable receiver comprising downconverting, filtering and switching (106 in Fig.3, also see 106 in Fig.4A), which are programmable. The at least one tunable down converter unit, at least one tunable filter unit and said switch may further be reprogrammed by external source by receiving the at least one selected channel input signal, (see 118 in Fig.1, and note col.44, line 56 – col.45, line 5) which requires downloading programs, thus interpreting the downloaded data for execution of the program and provide the parameters.

Therefore, it would have been obvious to one skilled in the art at the time of the

invention that the resource manager of Bexten controlling the switch may be combined with Phillips' controller (114), thus receiving the parameters from an external source (118) and controlling said at least one tunable down converter unit, for said at least one tunable filter unit and for said switch for the purpose of increasing flexibility of the system, which would be capable of dynamically controlling the receiver by externally providing the parameters as required. Regarding the limitation of "switching said switch in order to connect one of said RF receiver units to one of said tunable down converter unit using said parameters", as previously explained, Bexten teaches this limitation. (520) However, does not teach that the switching is performed using said parameters. As explained earlier, the Phillips already teaches the limitation of providing the parameters for said at least one tunable down converter unit, for said at least one tunable filter unit and for said switch. Therefore, it would have been obvious to one skilled in the art at the time of the invention that the resource manager of Bexten controlling the switch may be combined with Phillips' controller (114) for receiving the parameters and controlling said at least one tunable down converter unit, for said at least one tunable filter unit and for said switch for the purpose of increasing flexibility of the system, which would be capable of receiving plurality types of incoming signals.

Regarding claim 15, Bexten in view of Phillips teach all subject matter claimed, as applied to claim 14. Bexten further teaches digitizing said IF broadband signal by an ADC unit (220 in Fig.5) before switching.



Regarding claims 16 and 17, Bexten in view of Phillips teach all subject matter claimed, as applied to claim 14 or 15. Bexten further teaches the step of switching said switch directed by a management unit. (Resource Manager in Fig.5, note col.6, lines 53-62)

***Allowable Subject Matter***

5. Claims 1-13 and 19 would be allowable if rewritten to overcome the rejection(s) under 35 U.S.C. 112, 2nd paragraph, and claim objections, set forth in this Office action and to include all of the limitations of the base claim and any intervening claims.

***Conclusion***

6. **THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory

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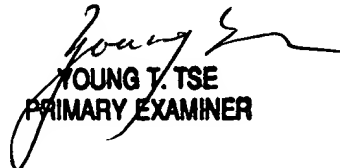
period for reply expire later than SIX MONTHS from the mailing date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Sam Ahn whose telephone number is (571) 272-3044. The examiner can normally be reached on Monday-Friday.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Jay Patel can be reached on (571) 272-2988. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Sam K. Ahn  
9/16/04

  
YOUNG T. TSE  
PRIMARY EXAMINER